

## AMENDMENTS TO THE CLAIMS

1. (Previously Presented) An assay for screening a test substance for hypothalamic inhibitory factor (HIF) inhibitory activity of an ouabain-resistant  $\text{Na}^+\text{-K}^+\text{-ATPase}$ , comprising the steps of:
  - (a) contacting liposomes containing, or cells expressing or containing, the ouabain-resistant  $\text{Na}^+\text{-K}^+\text{-ATPase}$  with the test substance in the presence of a compound comprising isotopic  $\text{Rb}^+$ , under suitable conditions for isotopic  $\text{Rb}^+$  uptake by the liposomes or the cells;
  - (b) measuring or detecting the amount of the isotopic  $\text{Rb}^+$  present in the liposomes or the cells; and
  - (c) comparing the isotopic  $\text{Rb}^+$  present in the liposomes or cells measured or detected with measured or detected isotopic  $\text{Rb}^+$  obtained by contacting liposomes containing, or cells containing or expressing, ouabain-resistant  $\text{Na}^+\text{-K}^+\text{-ATPase}$  with HIF in the presence of a compound comprising isotopic  $\text{Rb}^+$  under comparable conditions, thereby determining whether the test substance exhibits HIF inhibitory activity.
2. (Original) The method of Claim 1, further comprising the step of contacting ouabain-resistant  $\text{Na}^+\text{-K}^+\text{-ATPase}$  with HIF under suitable conditions in an aqueous medium for ouabain-resistant  $\text{Na}^+\text{-K}^+\text{-ATPase}$  activity, wherein said activity is measured or detected, thereby providing the measurement or detection to be compared with the test substance.
3. (Original) The method of Claim 1, wherein the ouabain-resistant  $\text{Na}^+\text{-K}^+\text{-ATPase}$  is obtained by substituting one or both border amino acid residues of the H1-H2 extracellular domain of  $\alpha$  subunit of an ouabain-sensitive  $\text{Na}^+\text{-K}^+\text{-ATPase}$  with a charged amino acid residue.
4. (Original) The method of Claim 1, wherein the isotopic  $\text{Rb}^+$  is  $^{86}\text{Rb}^+$ .

5. (Original) The method of Claim 1, wherein the isotopic  $\text{Rb}^+$  present in the liposomes containing the ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$  is separated from the unincorporated or liberated compound comprising isotopic  $\text{Rb}^+$  by chromatography.
6. (Original) The method of Claim 1, wherein the isotopic  $\text{Rb}^+$  present in the cells containing the ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$  is separated from the unincorporated or liberated compound comprising isotopic  $\text{Rb}^+$  by centrifugation through an oil layer.
7. (Original) The method of Claim 6, wherein the oil layer is a phthalate oil layer.
8. (Original) The method of Claim 4, wherein the amount of  $^{86}\text{Rb}^+$  present in the liposomes or the cells containing the ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$  is measured by a gamma counter.
9. (Original) The method of Claim 1, wherein the ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$  is isolated from a target cell.
10. (Original) The method of Claim 9, wherein the target cell is selected from the group consisting of a kidney cell, a heart cell, a pineal gland cell, a skeletal muscle cell, a retina horizontal cell, a retina Muller cell, a brain cortical astrocyte, a cerebellar granule neuron, a cortical neuron and a Hippocampal neuron.
- 11 - 14. (Canceled)
15. (Original) The method of Claim 1, wherein the ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$  is selected from the group consisting of a rodent, toad and butterfly  $\gamma 1$   $\text{Na}^+-\text{K}^+-\text{ATPase}$ .
16. (Original) The method of Claim 15, wherein the ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$  is a rat kidney  $\alpha 1$  ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$ .
17. (Original) The method of Claim 15, wherein the ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$  is a *Bufo marinus*  $\alpha 1$  ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$ .
18. (Original) The method of Claim 15, wherein the ouabain-resistant  $\text{Na}^+-\text{K}^+-\text{ATPase}$  is a *Danaus plexippus*  $\alpha 1$   $\text{Na}^+-\text{K}^+-\text{ATPase}$ .

19. (Original) The method of Claim 1, wherein the HIF is isolated from bovine hypothalamus.

20-31. (Canceled)

32. (Previously Presented) A kit, comprising:

(a) reconstituted liposomes containing, or cells containing or expressing, an ouabain-resistant  $\text{Na}^+$ - $\text{K}^+$ -ATPase;

(b) a compound containing isotopic  $\text{Rb}^+$  and

(c) hypothalamic inhibitory factor (HIF) HIF.

33-37. (Canceled)